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AGRICULTURAL MARKETING AND ECONOMIC
INTELLIGENCE

A Report on a Visit to the U.S.A.

by
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with an

Appendix on Home Economics

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This report deals with the subjects of agricultural marketing, agricultural "situation and outlook" work (i.e. agricultural economic intelligence) and certain features of work in home economics which bear on studies of marketing and consumption.

Since previous reports in this series have been concerned to only a limited extent with these subjects, this report is made in some detail. The principal sections are as follows.

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INTRODUCTION

Four British agricultural economists visited the United States from July 1952 to January 1953 under this project. They were,

G. G. Hayes, B.Sc., N.D.A.	North of Scotland Agricultural College, Aberdeen.
K. E. Hunt, M.A., Dip. Ag. (Cantab.)	Agricultural Economics Research Institute, Oxford.
W. H. Long, M.A.	University of Leeds.
S. T. Morris, M.Sc.	University of Bristol, Newton Abbot, Devon.

While working out the details of the programme in Washington it was decided that the team should divide according to their special interests. For the main part of their time Messrs. Hayes, Long and Morris gave special attention to research and extension in the economics of production while the author spent his time on outlook and situation work, marketing and consumption. Apart from this broad division, naturally each member followed particular interests of his own, and all had some contact with work in most parts of the subject of agricultural economics as a whole.

A single report from such a team could have formal entity but, since the study was made by different people in different places, there seemed small advantage in preparing it in this way. This report is, therefore, confined in the main to research and extension in that section of the field concerned with outlook and situation work, marketing and consumption. Since the subject of home economics is intimately associated with agricultural research and extension in the U.S.A., though not in Britain, an appendix to the report discusses aspects of that subject which bear especially on agricultural affairs.

Probably the team will never know of all the people to whom it is indebted for the chance to make this visit. The author gratefully acknowledges the work of the Mutual Security Administration, its staff in Washington and London and all those who worked with them in drawing up and carrying out the programme. He thanks, too, the Ministry of Agriculture for their part in the arrangements, the authorities of the University of Oxford and the Director of the Agricultural Economics Research Institute for leave of absence, and his colleagues who took over his work.

ITINERARY

The four members of the team stayed

- (a) in Washington, D.C. at the offices of the M.S.A. and U.S. Department of Agriculture for about 10 days on preparatory work.
- (b) at the University of Kentucky, (Lexington, Kentucky) for about 2 weeks attending a course on work simplification,
- (c) at East Lansing, Michigan, at the International Conference of Agricultural Economists for a few days, followed by a one-week tour,
- (d) at Urbana, Illinois, at the conference of the American Farm Economics association for a few days.

The team then divided up; the author then stayed

- (e) at the University Farm, (St. Paul, Minnesota) for about 4 weeks on general study,
- (f) at Iowa State College, (Ames, Iowa) for about 4 weeks on general study,
- (g) at Cornell University, (Ithaca, New York) for about 2 weeks on each of two occasions, - the first on general matters, the second for the State Outlook School,
- (h) at the U.S. Department of Agriculture, (Washington, D.C.) for about 8 weeks on a variety of subjects.

GENERAL

It would be misleading to pretend that after a six months' visit it is possible to make a balanced review of American experience in agricultural economics. But the visitor sees Americans getting results - in this or that particular - which it would be to our advantage to get here, though it may not be attractive, or even possible, to transplant the methods by which they are achieved. Or he sees studies whose subject has no direct parallel here but which use techniques applicable to some of our problems. In all such instances the visitor's duty seems to be to report selectively and to go as far as he is capable in appraising what use can be made of the pointers provided.

Two general comments seem justified, however:

- (a) Americans aim for a very close relationship between workers in
 - scientific agriculture and agricultural economics,
 - research, extension and teaching,
 - production, distribution and consumption.

The closeness varies from state to state but the basic intention is usually evident, both in the pattern of staffing and organisation and also in the habits of thought of the staff.

- (b) The source of their finance, and other reasons, make American research and extension workers very conscious of their success or failure in filling the "conscious wants" for results of farmers, distributors and consumers. This has good and bad sides. One of the good features, which British workers in marketing might usefully weigh carefully, is the value of results which are of immediate use, even if they are not intellectually of a very high order, in creating goodwill. Such situations are rarely simple, data helpful to one section of the public having no weight with others, but a worker who can show that he can produce results which are obviously useful seems justified in hoping for good co-operation from informants in a future study.

RECOMMENDATIONS

1. If occasions occur where both technical agricultural advisory officers and agricultural economists have the opportunity to visit the United States, or other countries, each team should include members of both groups.
2. Meetings should be arranged in each region of Britain between persons who have visited the United States and other countries to study research and extension methods. The aim of these should be:
 - (i) to re-establish contact between personnel with this experience,
 - (ii) to re-inforce and develop the co-ordination between workers in diverse sections of the field of the science and economics of agriculture,
 - (iii) to stimulate suggestions for putting into effect as fully as possible what experience under T.A. projects has taught. In particular the aim should be to foster plans which cannot proceed within the boundaries of the initiators' organisation.

AGRICULTURAL PRODUCTION AND POLICY

The diverse approaches to the study of production economics, and the part to be played by economic theory, has been studied by British specialists in this field. Three lines of work, however, seem of rather special interest:

- (a) the study of uncertainty (especially that resulting from variations in prices and in weather) and in the reactions of farmers to it,
- (b) the study, by enquiry directed to farmers, of the criteria on which farmers base their management decisions,

- (c) the study of what farmers know about current agricultural legislation, including the practice of price guarantees, of the issues involved in alternative public policies, and their attitudes and valuations in relation to such issues,
- (d) the study of the routes by which farmers receive their information. This is not easy to frame, but an objective enquiry would be valuable because those whose work is the conveyance of information to farmers find it difficult, even with the best of intentions, to avoid the mutual reinforcement of each other's views between themselves and the farmers they chiefly see.

The niceties of such enquiries probably demand the most skilled and best trained of field staff, but much must now be consciously assumed, or unconsciously taken for granted, about farmers' knowledge and criteria for judgement. Even a very unambitious enquiry would provide some probabilities with which to replace these assumptions.

It may very well be that some of the approaches which are listed here in the form of research projects could be usefully handled as a series of group discussions, between research workers, advisory staff and farmers, - e.g. of the pros and cons of alternative policies. They would then have an extension - or educational - aim as their primary purpose, with descriptive research as a by-product. Enquiry by group discussion may be a useful approach in other fields, too. Certain American experience suggests that where the data required can be given by the judgements of farmers about a subject within their own conscious observation - e.g. the changes in stocking following a change in, say, grassland management - then the consensus of opinion amongst a group of farmers may be a very useful pointer.

THE MARKETING OF AGRICULTURAL PRODUCTS

Judging from published material, agricultural economists in the United States seem to spread their interest more evenly across the whole subject than do those in Britain. But it is a subject where differences of opinion about boundaries can be especially confusing. Further, only a small proportion of British agricultural economists are concerned with marketing, even on its widest definition.

American studies bearing on marketing - i.e. the processes which set prices and direct production - fall under the following main headings:

- (a) Price, supply and demand.
- (b) Market organisation.
- (c) Transportation.
- (d) Market Development and produce utilisation.
- (e) Programme appraisal.

PRICE, SUPPLY AND DEMAND

Briefly the aim of this work might be said to be the making of the best possible forecasts of the prices farmers can expect to receive in the year or more ahead. It is thus an essential basis for the situation and outlook work discussed below (p.). Basic statistics of supplies and prices are essential to the work and considerable emphasis is placed on the estimation and use of national income statistics. To British workers its key feature is its emphasis on methodology. Multiple correlation analysis has been the most important tool for the last two decades but the simultaneous equation approach is now being explored.

MARKET ORGANISATION

Under this heading and that of transportation the emphasis is formally placed on:

- (a) the price differences between successive stages in distribution,
- (b) the explanation of these differences over time and between different marketing institutions and, hence,
- (c) the recommendation of means of reducing these margins.

Broadly speaking workers in this field are concerned with marketing constitutions and legislative problems. The effect of differing degrees of competition in distribution on the prices farmers receive has been one field of enquiry.

Another has dealt with changes in the price-making process with developments in transport. Thus at the beginning of the century there were several large markets where farm products were physically pitched and prices struck. Now with the spread of road transport and chain stores many goods go more directly to retailers at prices based on those realised for the reduced proportion sold centrally. The effect of direct and indirect legislative barriers to interstate trade has been the subject of further studies.

TRANSPORTATION

Work in this field tends to be factual and explanatory. Freight rates are continually being adjusted with direct or indirect effects on farmers and the recording of these changes and the exploration of their effects has so far formed the main work.

MARKET DEVELOPMENT AND PRODUCT UTILISATION

The title is self-explanatory. Under it would fall the development of a new process by which a surplus commodity could be sold profitably and the linking of a new potential user with the farmers who might supply the raw material. This is a vexed field. Some agricultural economists would argue that it is no job for their profession. Some business interests would argue that it is no part of the job of governments to pioneer markets. But the government has done such work.

FARM PROGRAMME APPRAISAL

Many "action" programmes contribute to the price-making forces which determine the return to farmers. These come in for objective scrutiny and their effects on comparative prices and on the allocation of resources of production are constantly reviewed.

A VISITOR'S REVIEW OF RESEARCH IN MARKETING

Many agencies sponsor work in some or all of these fields. The Department of Agriculture is concerned in all of them, though it usually contracts out the bulk of the work to individual state colleges or regional groups, or even to private research agencies. Regional marketing studies have developed, particularly since the passing of the Production and Marketing Act in 1946.

This outline shows that research is going on in all the main sectors of the field of marketing, as it is usually defined, and that economic theory and analytical methodology play their part. But the visitor does not get an impression of balance in the research programme. Nor does it seem to be particularly forward-looking. The above outline is, in brief, somewhat idealised.

The studies the visitor most frequently meets are descriptive of current market practice, of current margins between points in the distribution system and of what consumers said they preferred when shown a variety of samples of a product. There appears to be several explanations of this. Among what might be termed "intentional" reasons are:

- (a) Some description of the subject is essential before any serious analytical study can begin.

- (b) Descriptive studies provide valuable training grounds for new workers.
- (c) A factual statement often clears up misconceptions in the public mind and draws attention to unrecognised aspects of the subject.
- (d) They may show what cannot be done to improve marketing. This makes for better use of the efforts that can be spared for this goal.
- (e) The collection of data about the real world is a perfectly valid aim of scientific enquiry.

Among the "involuntary" reasons for the emphasis on these studies are:

- (f) Since the volume of research is expanding, new subjects and new workers are particularly to the fore with consequent accent on exploration and training. Moreover, experienced workers capable of directing the more penetrating studies are proportionately scarcer.
- (g) The form in which certain funds are parcelled out tends to encourage the carrying out of a series of similar, rather minor, descriptive enquiries rather than fewer, deeper, ones.

It could be argued that many of these enquiries go no farther than a necessary reconnaissance of the ground before a major research operation is staged. Further, that the ease of publication leads to studies being printed, for convenience, which would in Britain be on the files. To some extent this may be true, but some seem to carry the reconnaissance to an undue degree of detail, and marketing research workers themselves charge that the big operations are not being staged.

To an economist the hypothetical model for the situation is a simple one; it relates to the optimum combination of resources between the two enterprises, - descriptive enquiry and analytical study. But the outcome is difficult to measure and the parameters nearly impossible to calculate. Further, for the American the problem is that of adjusting a given volume of research resources; for the British it is steering the adjustment in, what it is to be hoped will be, an expanding volume.

It would be misleading to over-labour this discussion of the type of research. Its lesson for the British marketing economist studying agricultural marketing is, however, clear. As a scientist he is perfectly entitled to describe what he chooses. But he should be sure that, when the sceptic vulgarly asks "So what?", he can point to the sector where change is occurring, or could occur, and set out his plans for analysing the forces which bring it about.

Some examples of interesting lines of work at present under way in the United States are listed below.

- (a) A study is being made of the input/output relationships of the broiler chicken production industry in different areas of the United States. It is believed that over the longer term, taking into account the transport situation, trends in grain marketing, etc. a movement of broiler production to other areas would be preferable. If such is the result of the analysis, there may be means to encourage such a move since the equipment used is simple. (Whatever the apparent overall benefit to the community of a change proposed on the basis of research results, there is often no means in a free economy of bringing it about, other than the education of public opinion, and by the time that takes effect the basic situation may have changed).
- (b) A very different type of study is also being made with poultry marketing. This is the close job-analysis of the layout of processing and packing plants, and the analysis by engineers of the time occupied and the distance travelled in the various processes of killing, plucking, drawing, cooling, wrapping, etc. Similar work has been undertaken in the sexing and dispatch of baby chicks from hatcheries.

- (c) Various studies are being made in the Middle West on the needs for drying and bulk storage of grain under the present changing conditions of production and transport. The descriptive sections of this study uncover differences in the operating costs of different types of elevator and in the requirements of the laws operating in different localities relating to the structural requirements for public silos, and insurance and other financial aspects. Other sections of the study are exploring the changes which are taking place in the location of grain production and the changes in transport facilities, the effect on the demands for drying services of the changes in seasonality resulting from new harvesting methods for maize, and in the risks of storage now that a guaranteed loan programme operates. It is planned that the results of such a study will go quickly back to the elevator operation through a special course for elevator managers.
- (d) Numerous enquiries have included studies on wastage in transit of perishables such as lettuce, sweet corn, citrus, potatoes, eggs, etc., both obvious physical wastage by damage and the less obvious wastage through loss of quality. Associated with this are tests of packaging equipment, and of railcar and lorry design, which might offer the chance to reduce loss.
- (e) Though cattle have been bought on a graded carcass basis, the buying of hog carcasses by grade and weight is a new method in the Middle West. It promises to have wide repercussions in farm breeding and feeding practice. Research is now going on into the process of price making. One line is exploring the extent to which the prices which consumers are prepared to pay for cuts from different types of carcass is reflected back to the producer. In another, the variability in the prices paid for hogs in lots is analysed to see how buying by grade would reduce it.
- (f) The most satisfactory way of retailing fruit juice, packing apples, or displaying citrus, has been studied by direct experiment. A fairly typical trial might include 6 selected methods. Six shops are persuaded to co-operate for about 2 months. In the first week each shop uses exclusively one of the six methods and records are kept of the volume of sales, numbers of customers and related data. For the second week each shop changes to another method. This is continued, with a randomly chosen sequence, until the end of the sixth week when all shops have used all treatments. (This particular design is a typical 6 x 6 Latin Square experimental design such as might, in agricultural practice, be used for, say, trials of the effect of a ration on the composition of milk). The hypotheses need careful formulation and the statistical analysis must take close account of what precisely is to be tested but the method seems to have attractive possibilities.
- (g) The idea of concentrated discussions around a fairly narrow defined subject, less elegant than a conference and less directed than a study group, has been a fruitful research aid. Some might hold that their results may show as much advance as is achieved by some pieces of formally-recognised research. The subject of market quality provides a good illustration. Discussions between those who appraise quality for the industrial users of agricultural products, those who, as distributors, are concerned with grading for quality, and those who have studied consumers requirements and tastes, quickly showed big differences in their ideas about "quality". This may require new thinking about the precise reasons for grading, particularly in instances where it does not lead to purchase by description, and whether further standardisation would make for improved efficiency.
- (h) Market information has been the subject of study from several angles. One example is the comparison of the prices reported by the market reporters with the actual prices at which the transactions occurred, based on analysis of the sales notes. This may rarely be possible but scrutiny of the nature of the quotations may be illuminating - e.g. the volume of supplies changing hands at the quoted prices, whether they are actual prices or datum prices (from which those of actual transactions differ by regular premiums or discounts). Other studies have sought

for information from farmers about the source of their market information, what they expect it to do, the use they make of it, and their suggestions for improvement.

EXTENSION IN MARKETING

The aim of almost all American research workers in marketing is to get the results back to the people who gave the data just as quickly as possible, - even before any but the broad tabulations are finished. If the results give the complete answer to a current problem, so much the better, but a useful proportion of the extension workers' public seems prepared to be interested in interim results. This, in return, is often the easier because extension staff and research workers had combined in the original enquiry.

Market reports and other reference data are reset to give a basis for the decisions which farmers and distributors must make in the ordinary course of business. For example, statistical analysis showed that the bulk of the variation from year to year in the prices of apples in one state could be accounted for by variation in national income, and to a lesser extent, in supply. Hence, given these latter two variables at the start of each marketing season, a normal seasonal price curve can be calculated. Producers can then judge for themselves, - if the prices in September are below the curve there is a prospect of profit in storing.

CONCLUSIONS

1. Efficient marketing is obviously important to the community at large. But even under conditions of guaranteed prices and assured markets it would be evident to producers that at many point it affects them too. Thus, even though the main emphasis of British agricultural policy may be to stimulate production, more attention to research in marketing seems justifiable than is now being given. In particular, it seems that provincial agricultural economics departments should explore this field at least to the extent of appraising the main marketing problems in their areas.
2. With limited resources it is especially important that the research which is done should be to the point. The apparently natural tendency to slip into general description in this field suggests that a strict adherence to a scientific approach would be especially worthwhile. A review of the main problems, followed by the testing of specific hypothesis about them would keep enquiries moving.
3. A meeting of those who are personally concerning themselves with the research in marketing, so planned as to encourage free exploration and formulation of problems, would be a valuable aid in this programme.
4. Whatever may be the fundamental importance of the strictly economic aspects of the subject, the possibilities of improving the physical processes and facilities of marketing should not be despised since these may offer results which are more readily recognisable as helpful by the public than are some of the results of strictly economic enquiries. Moreover, their dissemination may meet with less opposition.
5. If marketing systems are to become less rigid, producers will be called upon to make more decisions without having complete foreknowledge of the prices they will receive. Market information is thus likely to become of greater importance. An enquiry into the sources of market information accessible to farmers, the kind they would prefer and the adequacy of those currently available would be helpful.

SITUATION AND OUTLOOK WORK IN THE UNITED STATES

This started in 1923 as the opinion of a group of well-known economists on the interpretation of some statistics of the acreage of crops which farmers had stated that they intended to plant. Aided by the development of techniques of economic analysis, this has gradually grown until it is now an all-the-year-round programme providing interpretations of current conditions and of

prospects for the future. The material is presented from various viewpoints. One series is concerned with commodities, - wheat, livestock and meat, tobacco, etc.; another with economic factors, - farm costs, farm income, demand and price, etc.

This work has the nature of an extension of statistical work, beyond the essential field of factual statement, into the field of interpretation and forecasting. To quote from an official review of 20 years outlook work - "Our proposal was not to formulate an agricultural programme but to draw a picture of the conditions with respect to the probable supply and demand throughout the competing area..... Farmers were not to be told what to do but to be given the facts they need in order to act intelligently..... It is well recognised that orderly marketing must be effected if farm prices are to be stable. The thinking farmers have already grasped the idea that orderly production is the basis for orderly marketing".

Outlook and situation work is regarded and valued somewhat differently by different American workers. A British observer may be expected to have still other views. Some attempt at appraisal is given below after the practice of the work has been outlined.

PREPARATION OF SITUATION AND OUTLOOK INFORMATION

The raw material with which the analysts work is the output of the crop and livestock reporting and estimating section and other statistical agencies; these are statistics of crop acreages and production, livestock numbers and production of livestock products, storage stocks, quantities traded, prices, employment, income, distribution, investment, etc. The best available statistical techniques are used to test hypothesis about inter-relationships between items and, hence, on the one hand, to point to possible causative factors and, on the other, to build up a basis for forecasting - particularly the forecasting of prices.

At some point before the results of such an analysis are set out as a forecast of the likely **trend** of events affecting farmers, the personal judgement of the research economist and of commodity experts will be brought in. How much of a given forecast trend can be assigned to the guidance of the analysis and how much to judgement is a matter of opinion - but all workers stress the basic use of the rigid statistical analysis.

Though the analytical work is largely directed towards preparing forecasts of prices the results are rarely, if ever, published in terms of dollars and cents; for some commodities there is a specific statutory prohibition on doing so. Normally public statements set out the balance sheet of factors making for increased prices on the one hand and decreases on the other. A dollars and cents forecast which is borne out by events is liable to draw on its author the criticisms that he, and not the underlying economic factors, caused the change in price.

The key intermediaries of a price forecast are estimates of supply and demand. Sometimes supplies are fairly easy to forecast for twelve months or so ahead, e.g., milk production or even hog production. Sometimes considerable analytical work on past relationships must precede a forecast, e.g., for beef where changes in the stock on-the-hoof can markedly affect production. Forecasting demand is a more difficult and devious process. The method in use in the U.S. Department of Agriculture can be sketched as follows.

Analysis has shown that for the period since the early 1920's there are close linear relationships between the following:

- | | | |
|---|------------|--|
| (a) Non-consumption expenditure.
(gross private investment, net foreign
investment and government purchases
of goods and services) | <u>and</u> | Gross national product. |
| (b) Gross national product. | <u>and</u> | Personal income. |
| (c) Disposable personal income. | <u>and</u> | Cash receipts by farmers
for all commodities. |
| (d) Cash receipts from farm marketings. | <u>and</u> | Volume of farm marketings
index of prices received. |

This is a considerable simplification of the actual procedure which includes refinements, (e.g. the separate treatment of income from wheat, tobacco and cotton in relation to value of exports), cross checks and additional forecasts.

The sequence of steps in making a forecast is then essentially as follows. Charts (a) to (d) are prepared from past data and the lines of best fit entered on them. For the coming year, forecasts of non-consumption expenditure are drawn from surveys made by other research agencies of the intentions of business firms and from federal budget proposals. From the fitted line on chart (a) the value of the gross national product appropriate to this level of non-consumption expenditure is read off. From the fitted line on chart (b) a figure for the personal income is obtained. Hence through the other charts to a forecast of the index of prices of agricultural products in general. Analyses for individual products are co-ordinated with such overall approaches.

This background of analysis, together with experience in the characteristics of the individual commodities provides, at the one extreme, informed comment on the current market situation and, at the other, a forecast of the probable trend of the economic position of agriculture in general or of an individual commodity. This forms the material of the numerous situation and outlook statements published throughout the year.

PUBLICATION OF INTERPRETATIONS

The general run of comment on the current position of supplies, demand, prices, farm income, etc., is published periodically through the year in a series of "situation" reports, one for each main commodity group with others for such subjects as farm income, costs, etc. Towards the late summer or early autumn each of these reports tends to look farther ahead and cover prospects for the coming year. Later these initial forecasts are revised as more data comes in until, by the following summer, the cycle is repeated.

THE OUTLOOK CONFERENCE

This emphasis on the long term forecast reaches a peak at the time of a conference of state and federal extension and other agricultural economists held annually in Washington in Mid-October. Here, these forecasts for the year ahead are set out in broad terms and discussed under such headings as,

- The world economic outlook.
- Outlook for domestic demand.
- Outlook for agricultural exports.
- Agricultural outlook.
- Farm and family living costs.
- Feed grains and meat animals.
- Dairy, Poultry, Fruit, Vegetables, Cotton.....
- Fats and oils, Wheat

For this conference are prepared not only copies of the papers read at each session but comprehensive books of charts summarising past statistics on agriculture, foreign trade and rural family living.

The organisers of the conference are careful to arrange ample time for contact between visitors from different states and between state and federal personnel. There is also provision for regional discussions. These informal contacts are important because it would be idle to claim that discussions at the main sessions are either deep, comprehensive or representative; they seldom are, amongst people in groups of 50 or 100 with only half an hour or an hour to discuss a subject.

STATE OUTLOOK WORK

Though the year-round situation and outlook work is widely valued, opinions differ about the usefulness of sudden peaks of interest as represented by the Washington Outlook conference. Some states use the material given in the

"Situation" reports, directly, or as background, in their extension work in the field. Others have their own state outlook conference attended by state specialists and county extension agents. In these states extension staff may give special "outlook" talks to groups of farmers during the winter. Another type of state action is the "Farm Business Conference" in which, in addition to meetings confined to specialists and extension staff, a day may be spent in meetings with country bankers, business men, and leading farmers. In still another type, the outlook is one part of a programme which includes also refresher courses for extension agents in other economic and technical subjects, - e.g., fruit packing methods and materials, new disease control methods.

The general practice is to provide participants at such conferences with considerable written, statistical and graphical material. Broadly this consists of extracts from that material provided at Washington, with the addition of local material. One such state chart series includes:

- on the economic situation; long term charts of the general price level, of prices paid and received by farmers, national production, industrial production, wages.

- on individual commodities; long term charts of quantities marketed nationally, and shorter term charts for the quantity of various products marketed locally, together with local data for crop acreages, livestock numbers, prices to farmers and retail prices.

Though the emphasis differs from state to state, it would be fair to say that two features are typically found. One is the practice of using the occasion of the outlook sessions with extension field staff, business men, or farmers, for extending general economic education. Thus the factors which affect farm income will be traced and the trends of general economic activity in the nation discussed.

The second feature is the way forecasts of prospective changes are followed up to their meaning for the individual farmer. Wherever possible the effect of the changes on farm income for the main farming types is discussed and the principles which should govern the necessary counteracting adjustments in farm practice, stated and discussed. State extension specialists will first review the subject with local extension agents. Later these will carry the discussion to groups of farmers.

The family-farm ideal is very widespread in the United States. Family and farm business are inextricably interconnected. In reflection of this, home economics extension workers - the extension agents' colleagues - have their own outlook sessions at the Washington Conference and at the state and local level. (see appendix report). Broadly speaking, in their part of the work the economic education aspect plays a bigger part than the forecasting of specific future trends. Presumably the more skilfully the household budget is handled the better the living enjoyed by the farm family for a given level of income. Furthermore the time may come when farmers can be kept in going order only by as sharp an adjustment in the home as in the farm budget. If it does, then through the home economics extension work there is as good a chance that the farmer's wife will appreciate the needs of the times as will the farmer.

APPRAISAL

Since different people envisage different aims for situation and outlook work, no appraisal is likely to appear to a wide audience as being well-founded. Most would agree that the within-the-season situation reports are interesting but are not of great direct value to farmers. They may be used more by the trader but they are there for the farmer if he wants them. There would be general agreement, too, that the background information distributed under the heading of outlook cannot fail to be valuable educationally and should, in the long run, make for more intelligent public study of farm policy. Research

work in the field of supply, demand and price, undoubtedly receives a stimulus, and its results find a ready outlet, through this outlook service. The main doubt centres on its value for production planning, the goal which, historically, has been placed foremost.

The accuracy of the forecast trends have been studied by several authors with the general conclusion that it is quite high. Such conclusions must to some extent be arbitrary since the forecasts usually quote only direction of trends - "up", "steady", or "down", and perhaps "quickly" or "slowly". It is difficult to express the divergence from truth of a forecast which said "up-slowly" when the event proved to be "down-slowly".

Looking broadly at the work, the key question seems to be, not how well are the forecasts borne out by events but, granting they are accurate, are they timely? As far as can be judged most forecasts are published between August and October to cover the period to the end of the following calendar year, but with most of the attention given to the twelve month period ahead. Wheat and milk outlook tends to take a longer term view. The production of some products - e.g., broilers can be adjusted very quickly but most farm produce takes a year or so to reach maturity. Thus, the pigs to be sold within the year to October 1954 were at least in embryo, and the cereals to be sold up to July 1954 were in the barn, in the previous October. It is difficult to see that outlook forecasts can have much straightforward effect on production in the year they cover. Several factors can be held to modify this general conclusion, however. If the forecasts for the second half of the following calendar year are reasonably firm, then production for sale in that period might be influenced, - e.g., spring sown grain, or pullets for late summer and autumn laying. Again, farmers are not to be expected to adjust their farming to meet every season-long fluctuation in prospects. Hence, if farmers move smoothly in response to a deep seated trend, even a year late, they are doing quite well. Finally, it can be argued that, in practice, outlook work now gets its results through its effect on the drafters of action programmes, rather than directly through the individual farmer.

This indirect effect of the work draws attention to the contrast between its continuous smooth growth in the last 30 years and the rather fundamental changes in policy towards agriculture which have occurred concurrently. For many farmers now the factors on which they make up their minds are the public announcements of price support levels, acreage allotments and other administrative acts. Need extension work in outlook go beyond the interpretation in terms of the individual farm type, of the desirable adjustments? Could not the results of the statistical analyses be kept for the guidance of those who draft action programmes?

RESULTS OF OUTLOOK WORK

The direct question is, what changes in farmers' intentions can be proved to be the result of this work? The direct answer is, probably - few, though whether this is due to lack of changes or lack of proof is difficult to judge. Measurement of such a feature is, by its nature, very difficult. Moreover, the more the extension work is successful in persuading farmers to make adjustments, the more the forecast is likely to be belied by events.

Another result, an increased awareness and appreciation by farmers of the nature and origins of changes which affect them, would be much more generally agreed. Probably it is no less valuable an outcome than a ready piecemeal switching and is likely to be more suited to a greater emphasis on "balanced" or diversified farming.

CONCLUSIONS

Many of those American agricultural economists who have a general knowledge of the operation of the February Review procedure take it for granted that the kind of economic analysis and forecasting which precedes the Outlook conference precedes the British Annual Review of the economic situation of agriculture. For example, they envisage that the statement of requirements from home agriculture which forms a background to the Review is derived in this way. However

this may be, and whatever may be the facade presented by some parts of the American outlook work, there are three pieces of work which would be valuable in Britain.

- (a) Technical and popular "outlook" information: Substantial volume of statistics about the British national economy and about British agriculture is published. But very little is systematically collated and interpreted to show its bearing on British agriculture generally and on individual sectors of it. This would be valuable - first as a basis for discussion between agricultural economists and agricultural advisory workers and, second, as a background for discussions with farmers about economic conditions which influence agricultural policy.
- (b) The prices announced after each Annual Review provide for British agriculture, in a more precise and timely manner, what the American outlook work seeks to provide. Their experience of the value of arranging their results in terms of the adjustments which would be profitable on specific types of farms seems to apply just as much to us. Local judgement about the best method should have the last word but some type of farm business conference, - attended by country agricultural officers, liaison officers, agricultural economists, and selected outside speakers seems a useful approach.
- (c) Economic considerations underlie most farming decisions and advice to farmers, even though these may be couched in technical terms. Provision is now made for a link between the British agricultural advisory services and agricultural economics departments. It is essential, however, that the technical officers should not regard economic matters as of the same nature as the ravages of an uncommon insect pest, - something on which the regional expert will advise if it should occur. This is formally recognised by all concerned but for the advisory officer economics may often seem like one more extra item in a full programme - one more tool in a full bag (though it could better be looked on as being itself a bag into which the tools fit). For him this outlook work, linked as it is with those broad economic conditions which interest him in his personal and intellectual life, may prove a useful common ground. Through such common ground his contact with the agricultural economist on production economics or marketing may be the easier.

ASPECTS OF ADVISORY AND EDUCATIONAL WORK

The basic philosophy of the American extension service is given in the following quotation.

"The ultimate purpose of the extension service is to promote the mental, spiritual, and social growth of the individual farmer, his wife and his children. According to our present point of view this can best be done by assisting them in analysing their own problems, in finding solutions for them and in bringing about active participation in formulating and carrying out the plans necessary to put these schemes into effect".
(Director Ramsower, Proc. Conf. of Land Grant Colleges, 1931)

Thus though American farmers are no less given to asking for specific advice than are the British, their extension service tends towards the "educational" rather than the "advisory". County agents must, naturally, go some way towards answering the "spot" questions if they are to keep goodwill but, apart from the philosophy of their service, the more they work through groups, farm leaders or "mass" media, the more farmers they are likely to influence per annum. Similar considerations have led marketing extension workers to concentrate on elevator operators, egg dealers and other firsthand distributors. Each one of such men who is convinced can influence many farmers.

The social conditions, farmers' outlook, the calibre of local extension agents and many other factors differ between different parts of the U.S.A. and between the U.S.A. and Britain. Such features as group, or indirect, approach may be of less use here. For example, it is difficult to envisage a short

course on credit, for British country bank managers, though such would be common enough in America. There seems no good reason, though, why these differences should make the rather broad outlook of the best of the county agents any less desirable here.

With this approach a county agent will be as conscious of the economic aspects of a proposed change in farm practice, even of the social possibilities for the family, as he will be of the husbandry considerations. Comment and facts on each will be equally absorbed if they come his way.

Few would claim that this is usual amongst British district agricultural advisory officers. The liaison officers have their work before them but they cannot function without the lively and continuous help of the field advisory staff.

Against this background, the means of disseminating economic information, especially that as voluminous as the outlook data discussed above, has special importance. Some of the American experience holds useful suggestions for using the spoken and written word and visual material for this purpose.

THE SPOKEN WORD

The possibilities in this field are endless but two lines seem well worth considering.

- (a) A good technique of teaching or lecturing comes instinctively to very few, - and to have it may not steer one into the advisory service! The speed with which those who are not born with the knack of putting over effectively what they have to say can learn to do so could be increased by a little direct help. Two fields in which a little formal training would pay dividends are:

- (i) the nature of the process of learning,
- (ii) the technique of giving a talk which best conveys its key points.

No high pressure salesmanship is needed. There would be a marked improvement if technical speakers all decided on the three or four key points they wished to make in a half an hour, indicated at the start what they were going to cover, approached each point from two or three angles and summed up at the end.

- (b) A discussion in which the audience takes an active part, and which is steered by the leader across the desired field, is a good deal more interesting than a talk of the same length. This may be a very effective way of handling such subjects as long term trends affecting agriculture, because members of the audience may be prepared to contribute experience covering the way in which the different stages of agricultural history affected them and their districts.

THE WRITTEN WORD

It is often the lavishness and profusion of American agricultural publications which is most striking. Closer scrutiny shows their content to be uneven. Some, mostly research reports, are unnecessarily clumsy and obscure; others, especially amongst those intended for farmers, convey their points clearly and easily. Sometimes this is due to the literary skill of the author, more often to careful drafting and editing. Though any good thing can be overdone the following are useful in preparing effective publications, -

- (a) Clear attractive writing. Within limits this comes from the use of
 - (i) short sentences with only the occasional dependent clause which is needed to prevent "choppiness",
 - (ii) familiar everyday words,

- (iii) personal words rather than abstract words and passive tenses.
- (b) Simple diagrams, graphs, photographs, each chosen to tell its story effectively and to tell only one at a time.
- (c) A layout which is easy to read. Partly this is controlled by the type and its size, but short lines with wide spacing between them are helpful.

Conscious attention to such points will help whoever is responsible for publications.

Most of the types of bulletin, circular and leaflets used in America are found in Britain, too. The country newspaper is much more highly valued as a channel for giving advice than it is here; some state extension services see it as their most important contact. County agents write regular contributions but, particularly for outlook work, they are supplied with ready-written contributions by the state extension staff. These they adjust and supplement to fit local conditions.

VISUAL MATERIAL

Considerably more use is made of charts and diagrams in extension work in agricultural economics in America than in Britain. To take three examples:-

- (a) Books of charts covering most aspects of the agricultural situation are prepared for issue to extension staff following the annual Outlook Conference. Smaller handbooks containing selections from the main book, with supplementary local material, are issued to state extension staff.
- (b) Filmstrips or slides of these charts on 35 mm. film are available to any extension agent with a projector (and most agents have access to them). Some films or slides can be bought, others are on loan. The score or so of slides and the projector, necessary for an evening's discussion, are very portable. It is arguable that the use of supplementary illustrations and of colour on these charts has been developed until it is distracting, but there is no reason to go this far. The use of similar material might well be developed in this country.
- (c) Some extension departments have found groups of large size charts, selected from the main series, the most satisfactory visual aid in discussion. A size of about 36" x 24" is found to be suitable provided that the beam from a portable spotlight can be thrown directly on to the charts.

It has also been found useful to provide each extension agent in an area with a looseleaf notebook to hold the chartbook and other comments on the Outlook. The data in this are revised regularly and the agent normally brings them to short courses etc., on the subject.

RADIO AND TELEVISION

There are many local and university radio stations in the United States with an audience predominantly of farmers or businessmen whose living is made by buying from, or selling to, farmers. Probably television coverage will have similar features in due course.

Extension and market information services at all levels have made much use of radio. The possibilities of television are now being explored but it is not yet in everyday use. Both are vivid examples of the policy of dealing with groups rather than individuals.

The proportion of the population dependent on farming in many localities and the organisation of broadcasting is so different in the two countries that a layman's comparisons are likely to be unhelpful. One apparent difference might, however, be relevant. American broadcasts to farmers "to do them good" seemed to label themselves less obviously than the British.

British opinion may not favour two music hall turns and two farming talks in a half-hour programme to farmers, though such an arrangement is a not uncommon American practice. The reading of a market report by someone to whom it obviously means something may be more attractive. Such a reporter could, without difficulty, slip in a reference to a desirable practice, or the advantage of ordering fertilisers now, at some sensible point. Such a programme might have more effect than one formally divided into a reading of market prices and a list of announcements.

CONCLUSIONS

- (a) Suitable charts and diagrams would help in the development of the study of economic aspects of agriculture, amongst advisory staff or farmers. This would be especially true of outlook work.
- (b) Material relating to national conditions could best be prepared centrally. The preparation of mimeograph charts and reference tables should present little difficulty but large-sized charts might need to be prepared by the user. Advisory Officers should also be ready to add local material as they require it, and to give the necessary time to effective presentation.
- (c) It would be well worth while arranging for advisory staff to receive training in the elements of education and in the preparation of easily read publications, if this is not already being done.

(Sgd.) K. E. HUNT
April, 1953

Research and extension work in nutrition and home economics in the
United States as it bears on agricultural economics

An agricultural economist visiting research and advisory institutions in the United States could scarcely avoid contact with the subject of home economics; in Britain he could readily do so. Some of the American interest probably arose just because the home was an untouched field inviting the use of methods of teaching and of analysing activities which had been developed elsewhere. Much of it is a reflection, in the academic world, of the interest of the people at large in improving conditions for the farm homemaker and in giving all families more enjoyment for their money and labour.

The term "home economics" as it is used in America can have a very wide scope. It embraces not only the home affairs of farm families but also many aspects of the urban home; not only the art of living in a rural community and of preserving home grown fruit, but also the relation of the trade cycle to the wisdom of buying a house at a particular time. But this report focuses its interest on two areas only of the whole field, namely the research and extension work which,

- (a) through its influence on the farmer's home, may directly or indirectly influence agricultural production;
- or (b) through its influence on urban consumers, may affect the market for farm products.

Naturally one's interest strays out from these centres farther at one point than at another. In doing so, features of the rest of the field are hinted at without being described in any balanced way. Such is the price paid for brevity.

Finally, it should be said firmly, that even if a description of the way something is done in the U.S.A. is given here, it does not mean that it is done in that way, or even done at all, throughout the country. There are 150 million Americans, six million of them on farms. Most are white, some are black; the ancestors of some came over in the Mayflower, others were born in American homes where German or Norwegian or Italian was still the everyday tongue. Quite apart from this diversity, it is extremely difficult for a visitor to peer through the enthusiasm of his informants and judge how many people have been influenced by a new idea or an extension programme. Luckily it does not add very much to the interest of an idea to know how widely held it is elsewhere. Its main value lies in its possibilities as a starting point for thought. In a different country such thought may lead to useful new results from the old idea - or to the good results of the idea in its original setting being achieved by some new means better suited to the new situation.

A British visitor's first reaction to his experience will probably be that:

- (a) the whole approach is entirely foreign to customs and practice at home, but
- (b) if it were not foreign, there would be interesting possibilities for stimulating changes which would be useful, directly or indirectly, to farmers' families in Britain.

The main reasons for the strangeness are:

- (a) in the United States the research and extension in home economics is carried on in parallel with that in agriculture, in institutions of university rank. In consequence,

*Appendix to a report on a visit to the United States in 1952-3 by K. E. Hunt, Agricultural Economics Research Institute, Parks Road, Oxford. Though presented as an appendix to a report dealing with agricultural marketing and agricultural economic intelligence it may possibly be required as a separate document, on occasion. Some items from the main report have therefore been repeated in the appendix where necessary in order to make the latter reasonably self-contained.

- (b) there is a considerable population of students studying this subject and even if only a fraction retain a professional interest in it, the rest, as married women, provide a receptive nucleus who are prepared to receive and use extension information,
- (c) home economics is taught in many high schools,
- (d) where the American housewife is prepared to face a personal upheaval the suggestion that a change should be made in method or equipment seems to be regarded as an invitation to an adventure with a sporting chance of betterment rather than as a guaranteed certainty of a markedly better state or a criticism of present competence,
- (e) the emphasis on the family farm as an ideal means that farm business and farm family living are looked on as inextricably inter-connected. It follows from this, that issues touching both business and family living should be weighed before a decision in either sector is taken,
- (f) the home economics extension service is organised in parallel with the agricultural extension service. The local officers (county agent and home demonstration agent) share the same office and may hold joint meetings with farmers and their wives. (In Britain the Rural Domestic Economy Instructresses employed by County Education Authorities are the nearest parallel to the Home Demonstration Agents. Members of Women's Institutes, a voluntary body, are the most likely recipients of their teaching. In addition, the Women's Institute provides its own programme of instruction in agricultural subjects through its Produce Guild as well as instruction in handicraft and cultural subjects,
- (g) the Department of Agriculture, through its home economics sections, provides an objective research, testing and advisory service for a wide range of products (e.g., textiles) used by household consumers.

Among the thought-provoking features of the American experiences which might commend themselves to one or other of the British organisations to handle in their own way are:-

- (a) Farmers' wives learn of possibilities, costs, and practical details of devices for making their life easier and fuller. This might include information on the relative merits of different systems of heating; the minimum heating necessary to allow a household water supply to be put in without freezing; designs for farm houses which can be smoothly added to as the family grows, and the costs of operating deep freezers with the most economical programme for filling them.
- (b) With such information at hand for them to discuss, the farm family can have as clear an idea of the return they can hope for in spending money as they have of the resources needed to earn it on the farm. This should probably make for both wiser spending and greater incentive to earn money by increased farm output.
- (c) If consumers know more about the main economic characteristics of the products of agriculture which they buy, both they and producers are likely to be better off. Examples are, providing help in recognising quality differences when choosing varieties of, say, fruit to suit the particular purpose for which it is needed, and in ringing the changes on foods so that, within reason, each is used most when it is cheapest.
- (d) The usefulness of such suggestions, and of others of a similar nature which are more matters of education than advice, may not be obvious to the housewives for whom they are intended. Advice on certain narrower problems of the home, not necessarily confined to farm homes on the one hand or food and its distribution on the other, might pave the way. There is some evidence that in Britain advice on the handling of textiles, the provision of safety devices against accidents to children, or the use of detergents, might be such builders of goodwill. The American extension service is also very conscious that cats can be killed in more ways than by drowning them in milk. For example, in some states they have been keen to improve the quality of the eggs sold from the small farm flocks. The approach has been to suggest simple large nest boxes, and dry cleaners

(abrasive) for dirty eggs and to stress that both mean less work than the old way. That they mean fewer dirty eggs, and less general contamination from the few that are dirty, is incidental in the teaching but central in the aim.

RESEARCH WORK

The work of the U.S. Department of Agriculture Bureau of Human Nutrition and Home Economics gives a fair indication of the scope of research. In Britain work in those fields seems to be more dispersed. The main long-term objectives of the American work are:

1. to find out more exactly the basic needs of food, housing, clothes and other goods and services which are needed for a satisfying life, because, - some yardstick is needed by which to measure achievement,
2. to find out more about the goods and services which satisfy human needs, for example - about not only the biochemistry of supplies and requirements of food nutrients but how the way we take our food affects the availability of the nutrients to the body, because this gives a yardstick for measuring supplies needed to meet the needs,
3. to gain a picture of what American families buy and use, because this shows the success in meeting basic needs and is useful to manufacturers; distributors, teachers and policy-makers.

Research into food and nutrition includes, amongst others, studies of :

- (a) biochemical aspects of the nutrient content of foods and of food requirements,
- (b) food preservation,
- (c) culinary properties of foods grown under different conditions, e.g., potatoes,
- (d) utilisation of products which are normally awkward to dispose of , e.g., large turkeys and poor quality beef,
- (e) cooking methods for meat to give greatest tenderness and smallest loss of weight.

Research into housing and household equipment includes:

- (a) preparation of tested house-plans,
- (b) analysis of household jobs to devise less tiring ways of doing them,
- (c) collection of information on farmers' preferences and problems, as a basis for progressively improved household design in general, and on such specific points as providing enough storage room,
- (d) the devising and use of tests for cookers, freezers, laundry apparatus, etc.

Research in textiles and clothing, includes study of:

- (a) the suitability of clothes for different climates,
- (b) the problems of laundering technique and shrinkage,
- (c) design of clothes that can be easily made at home yet look well-made,
- (d) the kinds of design and construction which give the longest wear in buttonholes, pockets and the like,
- (e) body measurements of women and children on a national scale as a basis for sizing clothing.

Research in family economics includes studies of:

- (a) how much food is now being eaten by families in various situations,
- (b) the most economical budgets for families of different compositions and for schools and other institutions,
- (c) the composition of foodstuffs for the guidance of doctors, dieticians and others concerned with detailed problems of nutrition.

To this might be added various studies conducted in other Bureaux but closely linked to the work of the Bureau of Human Nutrition and Home Economics. These include:

- (d) the economics of demand for foodstuffs at the national level and factors affecting it,
- (e) the organisation of retail marketing of foodstuffs and of the preferences of consumers for various types and grades.

This outline of the work on home and food problems carried on in the U.S. Department of Agriculture is a convenient indication of the scope of the subject, but in fact the Universities and various other institutions carry on similar work. Sometimes it is done in formal co-operation with the Department, sometimes the liaison is informal, and sometimes a state University will be tackling problems peculiar to its own locality. Just as at the national level there is close contact between departments, so at the state level. If a study of food consumption in rural areas is made, the local agricultural officer knows what is going on. When studying the marketing of, say, eggs, the marketing research staff will bring in the home economics staff to give help and to link up with the consumers' viewpoint.

The wealth of information which comes from the research work falls fairly easily into two groups;

- (a) The first consists essentially of detailed descriptions of economic and physical features of home life; how the income is used, how much food is bought, how much household equipment is in farm kitchens (all tabulated in various subdivisions relating to income or geographical location).
- (b) The second group includes all the comparisons which can form the basis of wiser decisions on spending and all the know-how that makes for more efficient household management. Such knowledge clearly holds promise of being very helpful to many families provided that the right parts are offered in the right way to the right people. This is the job of the information and extension services.

The bulk of the descriptive material poses rather important questions to the British visitor. Broadly speaking, there is much less information about long term trends in consumption and about what is done by families of different sizes of different incomes and in different places, in Britain than in the United States. And to get it would be very costly. Unfortunately it is extremely difficult to appraise the value of this material, even in a general kind of way. To those accustomed to having it, it is almost an article of faith to value it highly; conversely those who lack it are tempted to write down its value. The subject is complicated by the decision being one of degree; no one would doubt the value of a general description of, say, the proportion of farm houses which have an indoor water supply. The key question is how much detail is needed, about the item itself and its association with others, e.g., with the supply of water to the dairy barn? Probably in general terms no final conclusion can be reached - we should collect as much material as we can afford - but one comment does suggest itself.

In studying surveys in this field, especially those of family budgets, it is difficult to avoid comparison with the history of the study of farm costs and budgets. This material was collected originally for illustrative, descriptive, and to some extent research purposes. As time went on, more and more intensive attempts were made to derive consistent general relationships from the data.

For example, it was hoped that if farms keeping large dairy herds had a higher income per cow than those keeping small dairy herds, this relationship would be a useful supplement to general field experience in advising farmers on improving their management. There is now a tendency in many quarters to believe that useful measures of this kind of relationship can be calculated only from the results of studies designed specially for the purpose. The tendency for farms to differ in more than one factor e.g., size of herd or average milk yield per cow, makes it difficult to assign to one or other specific factor the differences between the economic results of farms in a sample.

The factors affecting the way consumers act seem no less varied than those affecting the outcome of farming. Nor is one family or person likely to differ from the next in fewer factors than does one farm from its neighbour. Thus theories set up to explain the behaviour of consumers have taken account of such varied items as the family income, the price of goods, fixed payments such as rent, social customs, forecasts of income and the buyers' knowledge of the range of goods he might buy.

This suggests that the most useful results from a limited amount of money and of trained research staff would come from being content with rather broader descriptions of present conditions and aiming to design enquiries to answer rather more specific questions than in the past. Those who plan research in the field are rarely free to follow the pure search for knowledge; they usually have to meet the needs of the sponsoring body as a condition of receiving the funds to pay for the work. Any illustration of the change in emphasis must recognise that such consideration may be over-riding. This apart, however, surveys of average food consumption per family might illustrate the point. It is often stated that a series of such studies is valuable because trends emerge which help merchants and government agencies in working out their respective policies. But so many reasons might account for such trends that it seems more useful to put the funds used for a repeat survey towards tracing just why a few families changed, rather than spending it on finding out what the end result of such changes were in a lot of families.

EXTENSION WORK

To treat this logically would have needed more consistent study than the author's concentration on agricultural economics could allow. Therefore, here again, interest is centred on a few areas, even though these differ in their character. They are:

- (a) the way the subject is shown to farm homemakers,
- (b) the work of the home demonstration agent,
- (c) "outlook" work,
- (d) consumer education,
- (e) visual and other aids issued in extension.

The contrast between the apparent British and American regard for home economics is the reason for including (a) and (b). Outlook work in home economics, (c), is closely associated with outlook work in agriculture, and both are little used in Britain. American consumer education in relation to foodstuffs, (d), has features which might be interesting supplements to British work. Visual aids (e) are a personal interest of the author but there seems ample scope for using them more freely before the point is reached where they become more time-consuming, or distracting, than helpful.

THE APPROACH TO THE SUBJECT FOR FARM FAMILIES

This varies greatly with the locality and, broadly speaking, with the state of the agriculture. Thus a home demonstration agent in a prosperous Middle West farming area may be concerned largely with questions about the niceties of the handling of textiles or the planning of a kitchen. She may be trying to see things from the viewpoint of people above her in the social scale - a relatively new experience for the service. One in a Southern state may spend much of her time working with the agricultural extension agent in helping family

farmers to plan their farm business and their home spending so that over a run of years ahead they get the best out of living and make well-founded improvements in their farm. Each agent has behind her the resources of the State and the Federal extension and research services.

The approach in a prosperous area seems not unlike certain features of the work of Women's Institutes and Rural Domestic Economy Instructresses in Britain. Home demonstration agents provide advice when asked but encourage women to form themselves into groups. Apart from discussions and other activities which occupy their meetings, they can send two of their number to courses selected from a range offered by the state extension specialists. These two having learnt, say, the essentials of servicing and operating sewing machines, in turn teach the rest of the group. A variety of special short courses covering a day or two are offered.

Home demonstration agents, like local agricultural extension agents, are pressed to give answers to specific questions but the philosophy of both is to get over to farm families certain principles. With these principles as a guide, farmers and homemakers are encouraged to make their own decisions. Thus in teaching the planning of a kitchen the need for definite work centres is explained - a mixing area, a cooking area and a clearing away area. The farmer's wife is encouraged to envisage her own kitchen equipment moved round to fit her principle. A target achievement may also be suggested, for example, to cook a meal without walking more than 70 steps.

In other situations the home demonstration agent's aim is to make sure that her audience has clearly in mind the issues they have to weigh up in reaching a decision. Probably she will do it by encouraging a group to suggest the key points themselves. Thus rural families need to decide how much of what they use they will buy ready-made and how much of their own time they will spend in producing. Clothes as well as food must be considered. Then, on the one hand, it may be cheaper to produce at home but, on the other, more will probably be used. To grow food cuts into spare time, but the diet will be richer in calcium and vitamins A and C, which are the nutrients most likely to be short. Families whose members are mainly out at work might fit in time for vegetable production but might do better to get used to using reconstituted dried milk than to make a poor job of keeping a cow.

Farm and home planning receives a lot of attention. Its scope varies. The disruptions of the last fifteen years have meant that more farmers have occasionally cooked a meal and, probably, more wives have handled field operations than formerly. A family whose members know the pros and cons of central heating, a deep freeze, electricity and water in the cow shed and concrete roadways, can so arrange things that a new installation brings comparable benefit to farmhouse and buildings. This will open the way to using further aids in home and stead and, if production has to be stepped-up to earn the money to buy them, there is an incentive to do so.

At the extreme, however, farm and home planning has developed into almost a communal study, by small groups of farm families, of ways of making a better living. Home demonstration agents and local agricultural extension agents outline the idea to meetings of farm families. Those who are so far interested come to a second meeting where the principles and programme are developed. This leads on to sessions where the layout of each farm is studied in the light of principles of sound soil management, and economy in labour. The most efficient use of resources of land, labour and capital is considered in the light of comments from the advisers or from others of the group. The needs of the family for the house, for schooling, etc., are considered alongside the chance of non-farm earnings. Out of this comes a programme of changes in farm and home over a period of, say, five years, with the associated investments from present capital or projected earnings. Such a scheme is the basis for the extension plans in Kentucky, for example.

As has been stressed, the way the extension programme is arranged is subject to endless variations with state and local situations and personalities and long run hopes may have to be adjusted to short-run pressures. However, running throughout the work are two elements of philosophy:

- (a) to make sure that workers in home economics and agricultural extension, agricultural economics and agricultural science, research and extension, all work closely together, and,

- (b) to put before farmers and their families principles and issues on which they themselves make their own decisions.

Many of those who handle this work in America believe that, with the right approach, almost any group of farmers could be led to take part in such planning sessions as are held in Kentucky, but it is extremely difficult for anyone used to British customs to envisage it in use here. The better times for British farming in the last 10 - 15 years have probably encouraged farmers to make quite a lot of the improvements which are feasible in their solid and rather inflexible houses. But even if they have, it is likely that any organisation which has contact with farmers' wives could put before them ideas which would make life happier for them, and by introducing new "felt wants" could increase the incentive for expanding agricultural production.

THE WORK OF THE HOME DEMONSTRATION AGENT.

Put very crudely, the home demonstration agent in the U.S.A. is like an assistant to the district officer of the National Agricultural Advisory Service who does part of the work done in Britain by several voluntary, commercial or official agents. Among these are chairmen of local Women's Institute groups; their instructors in various arts and crafts; instructors in classes provided by local education authorities in domestic science; the Good Housekeeping Institute; firms which produce gas, electricity, soap, etc. and the child welfare sections of the local medical officers department. An enquiry in 1947 showed that the time spent per week by the American home demonstration agent varied widely but averaged $51\frac{1}{2}$ hours, made up as follows:

Teaching	26	per cent.
Travel	18	" "
Office management	10	" "
Professional Improvement	9	" "
Planning	8	" "
Preparation for teaching	8	" "
Organising	6	" "
Collecting supplies and equipment	5	" "
Other items	10	" "
	100	per cent.

Clothing and textiles work took 6 - 11 hours a week, food and its preparation 4 - 5 hours, recreation and crafts, 3 - 5 hours. The job appears to be one where the agent is on call 18 hours a day, 7 days a week, and though salaried, must give much of the spirit of service which is rated so highly in work in this field in Britain.

It would clearly be unwise for a layman to make any detailed comment about this work, but two points suggest themselves. One of them is that the information supplied to the local agent by the state and federal specialists about the comparative merits of various household goods, and about efficient handling of them, seems to give her a sure foundation for good standing amongst her public. The second is that the economic information she receives must in the long run mean that rural people become better informed and that their personal and commercial policies will gradually become wiser.

Since much of the raw material for such services must be available in Britain even if it is scattered the question is posed, need it be so very costly to draw together useful summaries for the use of Rural Domestic Economy Instructresses and others of similar interests? If it would not be costly, who will do it?

Outlook work

The U.S. Department of Agriculture compiles and issues a great volume of information about supplies, demand, and prices of agricultural products which may help farmers in planning their production. This work goes

on all the year round but reaches a peak in October each year when a conference is held in Washington of extension specialists from the States to discuss the prospects for the year ahead. In recent years home economics extension specialists from the States have also come to the general papers of this conference and then continued with discussions on their own special subjects, though they may meet agricultural agents in discussions of regional problems.

Among the subjects for discussion at the 1952 Conference were "Housing outlook for 1953" and "The Food outlook for 1953". These subjects are closely parallel with those discussed throughout the agricultural specialists programme, but a large part of the home economics programme is customarily educational rather than forward-looking. Thus other subjects for discussion included the causes of variation in, the cost of living on farms, ways of measuring how well farm families are living, and the costs of operating a deep freezer.

When the specialists who attend this conference go back to their States they in turn pass on the information to their local home demonstration agents. How far this is done varies a lot from state to state. Some send a note to the district officers outlining the main points of the information they were given at the Conference. Others work it into a handbook which is issued annually as a reference manual for home demonstration agents. Some states hold their own joint conferences on the lines of the Washington conference but with a local slant. That for New York State takes the form of a training school for country agents for one week covering both outlook work and a refresher course in technical matters. Both home demonstration and agricultural extension agents attend. For the outlook sessions in home economics, books of charts are provided showing past trends in prices of foods, clothing, houses, etc.; in supplies of goods, and in the services available to farmers. This provides a general background against which the agent can set her local problems. It also provides the basis for discussions of the effect of economic trends on the conditions of farmers, and of the adjustments on the farm and in the home which would be necessary to meet bad times if they return.

Few extension workers would claim that these conferences have much immediate direct effect on what farmers' wives do. But many believe though that, taking the long view, this work helps home demonstration agents and, through them, leaders amongst farm homemakers and ultimately farm wives generally, to see why things happen in the economic world as they do. If this educational process goes on, then it can be hoped that farm families will back the farmer more wisely in adjusting farm production and the way of living to the general trends and the sudden emergencies which they must try to weather.

CONSUMER EDUCATION

The following notes deal only with the work in urban areas where families usually buy all their food from retailers. This is partly for brevity's sake and partly because the size of the British urban population makes urban work more interesting. In fact, however, American farm families are more and more coming to buy their food from retailers, too.

Small groups of extension workers have been organised in several states in the last three or four years to help housewives to buy shrewdly. They give news about what foods are in specially good supply and hence are cheap; describe the kinds of product which are best for this or that purpose, and show how to recognise the quality of product and to choose the most economical item for the job in mind. Workers from many fields are concerned from time to time, but the home demonstration and the marketing sections provide the core of the teams.

Put crudely, their purpose is to bridge the gap between the marketing extension specialist, who aims to help distributors to work more economically, and the home demonstration agent who teaches the principles of choosing nutritious menus and the knack of cooking attractive dishes.

In their day-to-day work the market reporters of the U.S. Department of Agriculture provide news of supplies and prices of foodstuffs, well before the office workers breakfast each day. This is especially so for fruit and vegetables at local markets. What this means in terms of good bargains may be outlined over the local radio before the housewife goes shopping. Or it may go out once or twice a week in a homemakers' magazine programme on radio or television, or in the Home page of local newspapers. Principles, rather than hot news, may

go out on special programmes, in newspaper articles, or in leaflets and bulletins distributed from the Consumer Education office or through the trade. (An example might be a leaflet on the characteristics of different grades of eggs and the purposes for which they are best suited. This is distributed in each dozen box of eggs bought during a selected few days.) Television is expected to have great possibilities for such work.

This work seems to have been built up gradually, no faster than it took to convince a body of consumers and traders that it was useful to them. Its success depends on having potentially useful facts which it can interpret to give something of practical value to its users. Market reporters are the source of some of these facts, grading experts, price analysts and cooks provide others.

In Britain we may be short of some of these facts from official sources, though trade sources could make this good in many instances if they thought it worthwhile. Even so, it seems that enough information could be collected to make such a service useful to all parties if some agency could develop it in a way suited to our conditions. To some extent it is done now; for example, recipes in magazines are timed in a general way to suit the fruit in season, and some broadcasts deal with it. If the idea is to have much effect, however, the timing needs to be rather precise and the coverage may have to be quite local. But even if confined to London there is a market among 8 million people.

These limitations apply to topical items. Advice on the recognition of quality in various products and on general matters such as the usual times of lowest price for different products should be available without difficulty.

VISUAL AND OTHER AIDS IN EXTENSION WORK

The personal communications of the home demonstration agents are supplemented and reinforced by a channelling of information through circulars, bulletins, articles for local newspapers, press releases, charts, diagrams, filmstrips, motion pictures, radio and television programmes, and exhibits at conferences and institutes. Many sections in extension divisions of the U.S. Department of Agriculture, and in State Agricultural Colleges devote full-time to the preparation of the necessary material.

WRITTEN MATERIAL

There is plenty of good quality paper to be had in America. Circulars and bulletins can, therefore, be made to look attractive. Wide margins help in this; so does ample space between the lines of type. The liberal use of photos or drawings adds interest and helps to fix key points in the mind of the reader.

Probably the most noteworthy point, however, is the care with which the best of these publications are prepared and edited to put over two or three key points to a particular type of reader. This results in very readable publications from which the main lesson can readily be grasped. Such methods are by no means universal. They do not produce good literature, and they can be overdone, but they have a value. To illustrate, in the previous paragraph there were, on average, about 19 words per sentence and 135 syllables a hundred words. In the paragraph before that there were 34 words per sentence and over 200 syllables per 100 words. This only supplies two rough indications of a difference in ease of reading which is perfectly evident to the lay reader. But such rough pointers as this are very useful as checks, especially for the "amateur" writer of extension material who has to do this as a sideline to his main job. Much use is also made of the short paragraphs and short lines of type as being easier to read. The personal "you" is used freely and often "Mrs. King of Crossgate farm, Essex County found ..."

Probably one of the most widely used extension methods for home economics, as for agriculture, is the regular article in the local newspaper, signed by the local agent. State extension specialists provide many of the basic stories to which the local agent gives his own slant.

VISUAL AIDS

Simple graphs, photos and explanatory diagrams are freely used in material for home demonstration agents and for homemakers. Charts are often illustrated by a drawing indicating the subject. This is intended to help fix the idea in mind but it is being overdone. Some charts are now so elaborately ornamented as to be distracting but this does not mean that a good chart is not well worth the trouble of drawing.

A simple chart can readily be cut on an ordinary duplicator stencil from an original laid underneath it. For use at meetings they can be drawn on large sheets of drawing paper bound with cellulose tape or even on wrapping paper with a blue pencil or on a blackboard. Motion films are widely used, often for introducing a subject in which key points will be explained by still pictures from film strips or 2" x 2" slides. Sets of these are available free on loan from the state colleges to local extension workers, but since some serviceable 35 mm cameras are on sale from the equivalent of £6 or £7 at British price levels and colour films cost under 1/- per exposure some extension agents are gradually building up sets of their own.

Many cheap, crude, but effective devices are also rigged up by various extension workers. The flannel graph idea is widely used. A useful gadget for showing how a kitchen can be rearranged to save walking is a model with floor, say, 1ft. square, with back and sides. Small wooden blocks roughly of the correct shape represent the equipment items. These can rest on the floor, or alternatively, if the floor were of fibre-board each standing item could have pins in the bottom to stick in. Wall cupboards can be hung over the top edges of walls. By having nails in the floor at key points, -- door, sink, cooker etc. the distance walked in various manoeuvres can be indicated by carrying a piece of cotton from point to point during the preparation of a meal and measuring its length under different arrangements of equipment. After a lecture at which such a model is used, cardboard cutouts might be distributed with which the audience can re-model in miniature their own kitchens.

To make such aids may take several hours and their use can be overdone but a good one can convey points so vividly that if the story has to be told in several districts, the time spent in making it may be very well spent.

RADIO AND TELEVISION

There are many local radio stations in the United States and many state universities have one too. These have long been used by the county agents and home demonstration agents as a channel for reaching farm people. Their state specialists have supplied outlines for such programmes which the agent can use with local ideas. Television is now providing an even more powerful carrier of ideas which is beginning to be used by extension specialists. The situation in Britain is different and the opportunities may be fewer. Some programmes already touch this field but it may well be that further exploration in the use of T.V. say, to suggest ideas in home management and in the recognition of quality in fruit and vegetables might be useful.

CONCLUSION

This appendix report is intended in the main for interest and information for teachers and voluntary workers concerned with domestic economy in Britain. There seems to be no agency to which a report with recommendations can suitably be addressed.

Two comments in conclusion seem justified however;

- (a) There are very good grounds for suggesting that agricultural advisory staff should personally and officially take account of economic as well as scientific matters in their work. It would probably be well worth while for them to make occasional contact as colleagues with those concerned with advice in domestic economy, too.

- (b) Some means should be found for supplying workers concerned with domestic economy and the affairs of rural housewives with some popularly prescribed information about economic conditions and trends as a basis for such educational work in current affairs as they may have the chance to give.

(Sgd) K. E. Hunt.

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